

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/442,187	11/16/1999	BRUNN WALL ROYSDEN JR.	81127.002	5513
7590	04/23/2004		EXAMINER	
FENNEMORE CRAIG 3003 N. Central Avenue Suite 2600 Phoenix, AZ 85012			COLILLA, DANIEL JAMES	
			ART UNIT	PAPER NUMBER
			2854	
DATE MAILED: 04/23/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 29 January 2004.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 10-68 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) 11-13, 18, 20-22, 27, 29-31 and 35-68 is/are allowed.
- 6) Claim(s) 10, 14-17, 19, 24-26, 28, 33 and 34 is/are rejected.
- 7) Claim(s) 23 and 32 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 16 November 1999 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)

4) Interview Summary (PTO-413)

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 10 and 16, are rejected under 35 U.S.C. 102(e) as being anticipated by Lahr.

With respect to claim 10, Lahr discloses a keyboard including a keyboard with a plurality of keys 20 and, although not shown, each key must inherently have its own structure so that they are supported for operation. Lahr further discloses a keyboard structure 26,27 that encases the keys and a computer component 12 (display) which is disposed between a space between at least two adjacent keys (keys “G” and “H” for example) as shown in Figure 4 of Lahr. Note that one definition for “adjacent” is, “relatively near and having nothing of the same kind intervening” (Webster’s Third New International Dictionary). There are no other keys between the “G” and “H” keys and they are located in the same local area (the keyboard).

With respect to claim 16, Lahr discloses that the computer component is a display element 12 which is an output means for displaying data from a computer.

3. Claims 10, 15, 19, 24, 28 and 33-34 are rejected under 35 U.S.C. 102(e) as being anticipated by Weeks.

With respect to claims 10 and 19, Weeks discloses a keyboard 10 with a plurality of keys 23,24 held in a keyboard structure, each key having a structure and a computer component 21 or 22 (microphone or light emitting diodes respectively) which is disposed between keys 23 and 24. Weeks discloses that the keyboard is for use with a computer which inherently includes a central processing unit.

With respect to claims 15 and 24, to the extent that applicant has defined “passive component” the microphone 21 is a passive component.

With respect to claim 28, Weeks discloses a keyboard 10 with a plurality of keys 23,24 held in a keyboard structure 12. Although not shown, each of the keys must have a key structure within the keyboard structure 12 for the keys to be operational. The keycaps are the portion of the keys 23,24 shown in Figure 1 of Weeks. Also shown in Figure 1 is a section key space that is defined by the key caps and key structure. Additionally, a computer component 21 (microphone) is disposed between keys 23 and 24 while the keyboard is in an operative position.

With respect to claim 33, to the extent that applicant has defined “passive component” it appears that both the microphone 21 or the light emitting diodes 22 can be considered a passive component.

With respect to claim 34, the light emitting diodes 22 are output means.

4. Claims 10, 16-17, 19 and 25-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Ishizawa et al.

With respect to claims 10 and 19, Ishizawa et al. discloses a keyboard 10 with a keyboard structure and a plurality of keys 3 having structure, output means 4, and a computer component

15 (parabola antenna) which is disposed between the adjacent inner-most keys in the top row in each of key sections 30 and 30A as shown in Figure 2 of Ishizawa et al.

With respect to claims 16-17 and 25-26, Ishizawa et al. discloses that the antenna 15 serves as a transmitter-receiver for communicating with a large-capacity computer system 16 (col. 8, lines 13-26).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lahr in view of Fukunaga.

Lahr discloses the claimed keyboard except for the integrated circuit. However, Fukunaga teaches a display for use with a keyboard (Fukunaga, Fig. 6A) in which the display is contains an integrated circuit in a liquid crystal display unit (Fukunaga, paragraphs [0076]-[0078]. It would have been obvious to combine the teaching of Fukunaga with the keyboard disclosed by Lahr for the space-saving features afforded by liquid crystal displays.

Allowable Subject Matter

7. Claims 11-13, 18, 20-22, 27, 29-31 and 35-68 are allowed.

8. Claims 23 and 32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

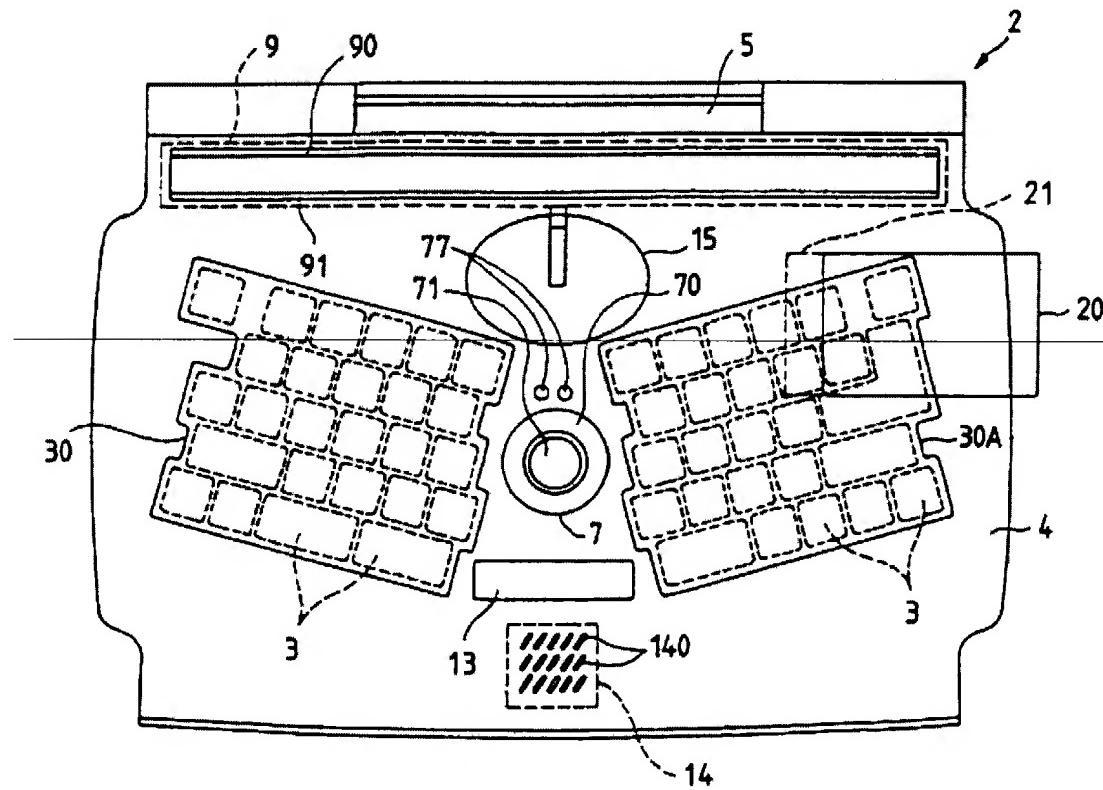
9. Applicant's arguments filed 12/1/03 have been fully considered but they are not persuasive of any error in the above rejection.

With respect to applicant's arguments regarding the patent to Weeks, the examiner disagrees that the microphone 21 cannot be considered a computer component according to applicant's definition in the specification. First, applicant has defined the term "computer component" in an open-ended manner. Applicant gives examples of some components that may be referred to as computer components but does not restrict the definition to only those components explicitly mentioned. Applicant only restricts the definition to exclude the components that applicant explicitly defines as keyboard components. The microphone disclosed by Weeks is clearly not a keyboard component.

Additionally, on page 2 of applicant's specification, applicant gives a definition of a computer component as defined by *The Tormont Webster's Illustrated Encyclopedic Dictionary*. This definition includes, "devices that respectively feed information into the CPU (input)." The microphone 21 disclosed by Weeks feeds sound information into the computer disclosed by weeks.

With respect to applicant's arguments regarding the patent to Ishizawa et al. the below Figure shows that the antenna 15 is at least partially located between the inner most keys in the top row of the key sections 30 and 30A (which are adjacent according to the definition mentioned above in the prior art rejection of claims 10 and 16). This is shown by the horizontal line (added by the examiner) passing between the bottom of the antenna 15 and the top outer corners of the two keys.

FIG. 2



With respect to applicant's arguments regarding the combination of Weeks and Stoffel et al., the examiner agrees that there is not motivation to combine the two references and therefore the rejection has been removed.

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

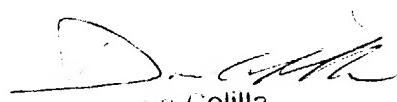
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dan Colilla whose telephone number is (571)272-2157. The examiner can normally be reached Tues.-Fri. between 7:30 am and 6:00 pm. Faxes regarding this application can be sent to (703)872 - 9306.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfeld can be reached at (571)272-2168. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

April 14, 2004



Dan Colilla
Primary Examiner
Init 285A